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An Evaluation of the Oral Paradigmatic/ Syntagmatic Language Inventory in Terms of Certain Phases of the Metropolitan Achievement Tests.

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SUMMARY

This study investigated oral language to determine its relationship to factors of achievement in reading, word knowledge, and language. The results were analyzed by sex and race.

THE PROBLEM

The purpose of the study was to determine the degree of relationship that existed between the Metropolitan Achievement Tests, Advanced Battery, Form G, sub-test scores in Reading, Word Knowledge, and Language and the paradigmatic responses on the Oral Paradigmatic/Syntagmatic Language Inventory among eighth grade students. Null hypotheses were tested for a significant correlation between the raw scores on the Oral P/S Language Inventory and the MAT sub-test raw scores in Reading, Word Knowledge, and Language.

DELIMITATIONS OF THE STUDY

This study was limited to the eighth grade students in Westdale Junior High School in East Baton Rouge Parish, Louisiana. The subjects were those who were in attendance in the assigned classes on the days of testing.

Measuring devices were the Oral P/S Language Inventory and the Metropolitan Achievement Tests, Advanced Battery, Form G. The Oral P/S Language Inventory was an individually administered instrument which was composed of 30 stimulus-words. The Metropolitan Achievement Tests, Advanced Battery, Form G was a standardized achievement test normed for use at the eighth grade level.

The statistical device used was the Pearson product-moment method to calculate the correlation coefficients between the Oral P/S Language Inventory scores and the sub-test scores from the MAT. To determine the level of significance, z-scores were used.

PROCEDURE

The Oral P/S Language Inventory was individually administered to students in the junior high school with a balanced racial population as determined by the East Baton Rouge Parish School Administration. The Oral P/S Language Inventory was administered by the researcher to each eighth grade student according to the directions provided with the test and was given in the selected school the last week of April and the first week of May of 1977. Raw scores of the paradigmatic responses were collected for data.

Raw scores on the MAT sub-tests were taken from computer data sheets provided by the parish school system. The MAT had been given to the sample population as part of a parish-wide testing program in April, 1977.

Data were collected and correlated by race and sex among eighth grade students. The Pearson product-moment method was used to calculate the correlation coefficients between the paradigmatic responses on the Oral P/S Language Inventory and the raw scores of the MAT sub-tests in Reading, Word Knowledge, and Language, and then submitted to tests of significance at the .05 level of confidence by using z-scores.

FINDINGS

In testing the null hypotheses of this study, fifteen were accepted and nine were rejected. There was a significant correlation between the raw scores on the Oral P/S Language Inventory and the MAT sub-tests raw scores in Reading, Word Knowledge, and Language for the sub-groups of black male students, black female students, male students, female students, and black students. There was no significant correlation between the raw scores on the Oral P/S Language Inventory and the MAT sub-test raw scores in Reading, Word Knowledge, and Language for the sub-groups of white male students, white female students, and white students.

CONCLUSION

In light of the above findings and within the limitations stated, it was concluded that paradigmatic responses on the Oral P/S Language Inventory were significantly related to scores of the MAT sub-tests in Reading, Word Knowledge, and Language for some sub-groups. There was no significant relationship for some sub-groups.

Chapter 1

INTRODUCTION

Oral Language, one component of the communication process, has been noted by Hetherington and Parke (1975) as being developed by most average children between their first and third birthday. This oral language was controlled by an abstract system of rules used to convey an infinite set of messages and has been one of the most significant cognitive developments required of children. The process was started by the production of various sounds, progressed through the ability to speak intelligible words, and was finally completed when words were combined to communicate both patterns of thoughts and expressions of feeling.

Because language has been an integral part of the goals and function of the school, it has served as the medium for academic progress. The ability to use spoken language has become a necessary skill, an important tool that children in an academic environment must be able to use in the acquisition of learning. Oral language has provided children the means of communicating messages prior to their entering school, and through the use of this basic skill, they have been taught academic concepts.

The degree of mastery of language skills has determined readiness to do school tasks and the ability to profit from instruction. Under normal conditions children have experienced speaking with and listening to a language. As children have advanced in school, language

proficiency has been an index of mental growth and has assisted in the assessment of scholastic achievement at a given grade level. Academic concepts have existed within the framework of a symbolic process, and all have been developed, and refined, through thought processes which depended on the manipulation of language symbols.

Spache and Spache (1973) believed that the early development of language skills, in particular an extensive speaking vocabulary and fluency in usage, provided a strong indication of academic readiness. Familiarity with the order of sentence structure and the comprehension of an enriched vocabulary contributed to readiness for formal instruction. Children brought their language with them when formal education began and learned to read effectively only to the degree that they had acquired a meaningful vocabulary.

Smith (1965) claimed that the use of spoken language was the most important skill with which children began the educational venture and facility in expression, familiarity with syntax, and a rich vocabulary contributed to success in the interpretation of language symbols, both written and spoken. Children progressed in their ability to function in the academic environment as they were able to interpret printed or written material.

Language communication was improved through the use of word symbols. Reading proficiency developed as language communication expanded. Effective instruction was accomplished when the teacher became cognizant of the pupils' ability to use language, and then used that information as an aid in planning for reading instruction.

One of the problems faced by the teacher of reading was the availability of a diagnostic instrument which could be easily and quickly administered to children to assess their reading ability. A valuable aid to the teacher for determining the reading performance of students has been an informal inventory. Barbe (1961) stated that the informal type of test was of the greatest value to the classroom teacher for acquiring information of her students performance and capabilities.

Gibson (1975) identified a number of language abilities and cognitive processes that must be present in the reader for effective reading to take place. Some studies indicated that the number of children's paradigmatic responses on an informal language inventory have been related to higher achievement, while syntagmatic responses have been related to lower achievement. Therefore, scores on an informal oral language inventory which correlated to standardized achievement test scores should be valuable to the reading teacher in the classroom setting.

THE PROBLEM

The purpose of this study was to determine the degree of relationship that existed between the Metropolitan Achievement Tests, Advanced Battery, Form G, (MAT) sub-test scores in Reading, Word Knowledge, and Language and the number of paradigmatic responses on the Oral Paradigmatic/Syntagmatic Language Inventory (P/S Inventory) among a select group of eighth grade students. The problem of the

study was to determine if there were a positive correlation between the raw scores on the P/S Language Inventory and the MAT sub-test raw scores in Reading, Word Knowledge, and Language and whether this correlation was affected by race or sex.

The following null hypotheses were tested:

1. There was no significant relationship between the scores of white male eighth grade students in reading as determined by their raw scores on the MAT sub-test and their number of paradigmatic responses on the P/S Inventory.

2. There was no significant relationship between the scores of black male eighth grade students in reading as determined by their raw scores on the MAT sub-test and their number of paradigmatic responses on the P/S Inventory.

3. There was no significant relationship between the scores of white female eighth grade students in reading as determined by their raw scores on the MAT sub-test and their number of paradigmatic responses on the P/S Inventory.

4. There was no significant relationship between the scores of black female eighth grade students in reading as determined by their raw scores on the MAT sub-test and their number of paradigmatic responses on the P/S Inventory.

5. There was no significant relationship between the scores of black eighth grade students in reading as determined by their raw

scores on the MAT sub-test and their number of paradigmatic responses on the P/S Inventory.

6. There was no significant relationship between the scores of white eighth grade students in reading as determined by their raw scores on the MAT sub-test and their number of paradigmatic responses on the P/S Inventory.

7. There was no significant relationship between the scores of male eighth grade students in reading as determined by their raw scores on the MAT sub-test and their number of paradigmatic responses on the P/S Inventory.

8. There was no significant relationship between the scores of female eighth grade students in reading as determined by their raw scores on the MAT sub-test and their number of paradigmatic responses on the P/S Inventory.

9. There was no significant relationship between the scores of white male eighth grade students in vocabulary as determined by their raw scores on the MAT sub-test and their number of paradigmatic responses on the P/S Inventory.

10. There was no significant relationship between the scores of black male eighth grade students in vocabulary as determined by their raw scores on the MAT sub-test and their number of paradigmatic responses on the P/S Inventory.

11. There was no significant relationship between the scores of white female eighth grade students in vocabulary as determined by their raw scores on the MAT sub-test and their number of paradigmatic responses on the P/S Inventory.

12. There was no significant relationship between the scores of black female eighth grade students in vocabulary as determined by their raw scores on the MAT sub-test and their number of paradigmatic responses on the P/S Inventory.

13. There was no significant relationship between the scores of black eighth grade students in vocabulary as determined by their raw scores on the MAT sub-test and their number of paradigmatic responses on the P/S Inventory.

14. There was no significant relationship between the scores of white eighth grade students in vocabulary as determined by their raw scores on the MAT sub-test and their number of paradigmatic responses on the P/S Inventory.

15. There was no significant relationship between the scores of male eighth grade students in vocabulary as determined by their raw scores on the MAT sub-test and their number of paradigmatic responses on the P/S Inventory.

16. There was no significant relationship between the scores of female eighth grade students in vocabulary as determined by their raw scores on the MAT sub-test and their number of paradigmatic responses on the P/S Inventory.

17. There was no significant relationship between the scores of white male eighth grade students in language as determined by their raw scores on the MAT sub-test and their number of paradigmatic responses on the P/S Inventory.

18. There was no significant relationship between the scores of black male eighth grade students in language as determined by

their raw scores on the MAT sub-test and their number of paradigmatic responses on the P/S Inventory.

19. There was no significant relationship between the scores of white female eighth grade students in language as determined by their raw scores on the MAT sub-test and their number of paradigmatic responses on the P/S Inventory.

20. There was no significant relationship between the scores of black female eighth grade students in language as determined by their raw scores on the MAT sub-test and their number of paradigmatic responses on the P/S Inventory.

21. There was no significant relationship between the scores of black eighth grade students in language as determined by their raw scores on the MAT sub-test and their number of paradigmatic responses on the P/S Inventory.

22. There was no significant relationship between the scores of white eighth grade students in language as determined by their raw scores on the MAT sub-test and their number of paradigmatic responses on the P/S Inventory.

23. There was no significant relationship between the scores of male eighth grade students in language as determined by their raw scores on the MAT sub-test and their number of paradigmatic responses on the P/S Inventory.

24. There was no significant relationship between the scores of female eighth grade students in language as determined by their raw scores on the MAT sub-test and their number of paradigmatic responses on the P/S Inventory.

IMPORTANCE OF THE STUDY

Dinnan, et.al. have conducted studies to determine whether there is a positive correlation between P/S responding and reading achievement, intelligence, and/or academic success; however, no studies have provided conclusive evidence with regard to the above variables and race and/or sex. Review of the literature also indicated that no studies have been conducted with specific findings for P/S responses with regard to sex or race and the possible correlation to reading achievement or language ability. This study should be valuable in determining whether or not the Oral P/S Language Inventory could be used by the classroom teacher as a rapid, informal assessment of vocabulary level, reading level, and language ability and whether or not the assessment would be influenced by race or sex.

DELIMITATIONS OF THE STUDY

The population of this study was limited to:

1. The eighth grade students of Westdale Junior High School in East Baton Rouge Parish, Louisiana.

2. The eighth grade with an enrollment of 311 pupils of which 159 or 51 percent were white and 152 or 49 percent were black students.

3. The eighth grade students for whom all test scores were available.

DEFINITION OF TERMS

Paradigmatic Response

The term paradigmatic response used in this study consisted of those responses as defined by Bickley, Bickley, and Cowart (1971) that illustrate the relationship of superordinate (apple-fruit), co-ordinate (arm-leg), contrast (white-black), or part-whole (branch-tree).

Syntagmatic Response

The term syntagmatic response used in this study consisted of all responses not classified as paradigmatic.

Oral P/S Language Inventory

The Oral P/S Language Inventory used in this study was an individually administered instrument of 30 stimulus-words compiled from the Fitzgerald (1963) List of Basic Communicating Vocabulary. A copy of the Oral P/S Language Inventory will be found in Appendix D.

Coefficient of Correlation

The term coefficient of correlation used in this study was a measure of the degree of relationship between two sets of measures. The product-moment correlation coefficient devised by Pearson was used as the measure of statistical correlation. The coefficients of correlation were submitted to tests of significance at the .05 level of confidence using z-scores.

PROCEDURE

Permission was secured from the East Baton Rouge Parish School System through a request made to Dr. Lorin V. Smiley, Assistant Superintendent of Instructional Services. A copy of the request and letter granting permission will be found in Appendix A.

Request was made to and permission granted by the LSU Committee on Use of Humans and Animals in Research. Copies of the letters will be found in Appendix B.

The principal of the individual school also consented to the administration of the Oral P/S Language Inventory to the eighth grade students in the selected junior high school. A copy of the letter will be found in Appendix C.

The P/S Inventory was administered to students in a school with a balanced racial population as determined by the East Baton Rouge Parish School Administration. The Oral P/S Language Inventory was personally administered to each eighth grade student according to the directions and was given in the selected school the last week of April and the first week in May of 1977. A copy of the Oral P/S Language Inventory will be found in Appendix D.

Raw scores on the sub-tests were taken from computer print-out sheets of the Metropolitan Achievement Tests, Advanced Battery, Form G, which were derived from scores of a parish-wide testing program which was administered in April of 1977. Raw scores

of the paradigmatic responses were taken from the Oral Paradigmatic/Syntagmatic Language Inventory administered by the researcher to each eighth grade student in the selected school who was in attendance on the days designated for test administration.

The Pearson product-moment method was used to calculate the correlation coefficients between the number of paradigmatic responses on the P/S Inventory and the sub-test scores from the MAT. Data were collected and correlated by race and sex. The correlation coefficients were submitted to tests of significance at the .05 level of confidence.

THE INSTRUMENTS

Fitzgerald's (1963) list of a basic communicating vocabulary provided the source for the compilation of the word list. The Oral Paradigmatic/Syntagmatic Language Inventory was a list of 30 stimulus-words which were individually administered to the students. The tester directed the child to respond with the first word he thought of upon hearing the stimulus word. Bickley, Bickley, and Cowart (1971) reported a test-retest reliability correlation of .78 for the P/S Inventory.

The Metropolitan Achievement Tests, Advanced Battery, Form G, has been a widely used standardized achievement test which has Reading, Vocabulary, and Language as sub-tests. These reliability coefficients were determined from the split-half method and were reported as .92 for the sub-test of Reading, .93 for the sub-test of Word Knowledge, and .96 for the sub-test of Language.

ORGANIZATION OF THE STUDY

The remainder of this study was organized into four chapters. A review of related literature was summarized in Chapter 2. Chapter 3 discussed the steps of the procedure of this study. An analysis of the data yielded from the collection of data was presented in Chapter 4. Chapter 5 stated findings, presented conclusions, and made recommendations for further studies.

Chapter 2

REVIEW OF SELECTED LITERATURE

This chapter was confined to a review of the literature regarding: (1) the classification of oral language, and (2) oral language as it related to certain variables.

THE CLASSIFICATION OF ORAL LANGUAGE

Chao (1968) defined language as a system of habitual vocal behavior by which members of a society communicated with one another. The mode of communication possessed distinct characteristics of a system. Through the language system nearly every goal and function of an academic environment has passed, either in written or verbal form. Sensory impressions, translated into language equivalents, were the basis for learning.

An interest in the language behavior of children prompted Deese (1962) to conduct an investigation of the word associations of children. The study also proposed that different frequencies were produced by different form-classes. Paradigmatic associates were established as those words which could occupy the same position in an utterance as the stimulus-word and be of the same form-class. Words which occupied contiguous positions in an utterance were termed syntagmatic and were members of different form-classes. The data provided a comparison of the relative frequency of paradigmatic and syntagmatic associates to

stimuli of four form-classes: nouns, verbs, adjectives, and adverbs. Paradigmatic associations were produced a higher percentage of time for nouns, verbs, and adjectives. This supported the hypothesis that paradigmatic and syntagmatic associations occurred in different frequencies to stimulus-words which were of different form-classes.

Word associations to stimuli of various form-classes were collected by Entwisle and Forsythe (1963) from pupils in the fifth grade who were matched in I.Q., sex, and social status. Results revealed that the method of administration, individual-oral, exerted more influence on the differences in responses that did the word-class.

Beauvois (1973) used "bipolarity" of speech to validate the classification of associative responses. The paradigmatic/syntagmatic criterion was used as the linguistic theory to distinguish the two poles in the organization of speech. The paradigmatic pole was distinguished where there was an interchange of the selection of units, and the syntagmatic pole where the combination of units was constrained by sentence closures. Subjects in the study were presented stimulus-words and asked to respond with the first word they thought of. Scoring classified two words as paradigmatically similar when they could be substituted in the identical frame and syntagmatic when they followed one another in utterances.

Dinnan (1975) analyzed the core words of the Thorndike/Lorge and Carroll Prime Frequency Word Lists and discovered two kinds of words presented in the lists. The first was an identification of

matter in reference to either time or space. Further analysis showed a contrast to a word within the frequency distribution, and Dinnan suggested that these prime frequency words and their contrasts provided the basis for word classification. .

An investigation by Dinnan (1970) was conducted to assess the verbal behavior of pre-school, inter-city, disadvantaged Head-start children. There were 188 subjects, ages 3, 4, 5, and 6, who were individually administered the P/S Oral Language Inventory. Responses of the children were analyzed as to whether they were paradigmatic or syntagmatic classification. Paradigmatic responses to stimulus words were those which were superordinate, co-ordinate, whole-part, or a contrast. All other responses were regarded as syntagmatic. Dinnan further compared the data to Guilford's Structure of the Intellect:

Paradigmatic Responses	Guilford's Structure
Superordinate (morning-time)	Systems
Co-ordinate (car-truck)	Classes
Whole-part (body-arm)	Relations
Contrast (old-young)	Relations

Syntagmatic responses were considered to be an independent closure of the stimulus based on the experiences of the individual. The data revealed a significant difference between paradigmatic and syntagmatic responding of the subjects.

One method of identifying the oral responses and the base references supplied to stimulus words was supplied by Dinnan (1973:4-5).

Over 5,000 subjects ranging in ages three to sixty-three were the sources of the data. Permission to cite the following classification of syntagmatic responses was granted by the author:

0 Category - (Not considered a response)
1. Blank - (no response) No association evident through an oral response

1st Category
1. Closure: Response from experience base associations
2. Chaining: Response with no reference to the stimulus

2nd Category
1. Repeat: returning identical word
2. Sentences: using stimulus in a sentence or phrase pattern
3. Synonym: another similar unit response
4. Letter and letter combinations: Identification of letters and sound correspondence
5. Word-letter substitutions
6. Letter Sequence: Alphabet

Esper (1973) stated that the association of ideas was the oldest theory of psychological organization in terms of learning, and asserted that every writer on psychology since Aristotle has recognized in some form the significance of associative learning, and "even Aristotle emphasized the importance of the principles of contiguity and frequency, especially those of similarity and contrast."

SUMMARY

Oral language was classified as paradigmatic when the responses were of the same form-class and could serve as a substitute in the same position (Deese, 1962; Entwisle and Forsythe, 1963; Beauvois, 1973). Those paradigmatic responses were placed in one of the categories of super-ordinates, co-ordinates, part-whole, or contrasts (Dinnan, 1970). Responses which depended upon the personal experiences of the individual were classified as syntagmatic (Dinnan, 1970; 1973).

ORAL LANGUAGE AS IT RELATED TO CERTAIN VARIABLES

Gayne (1973) described an educated person as one who was recognized by what he did, the products he created, the choice of action he made, and the communication he uttered. These behaviors indicated the possession of certain capabilities, traits, dispositions, and skills. One learned intellectual skill was how to do something which required the translation or transformation of symbols for the purpose of communication. Interaction with the environment came from using language symbols. The language skills learned by young pupils were basic skills, because the skills entered into virtually all of their later learning, thinking, and doing. The mastery of basic intellectual skills, the language skills, was necessary for further learning, and therefore the acquisition of these skills constituted a necessary educational goal.

Heilman (1972) stated that the assessment of what the student learned at any grade level relied on language usage, and a study of the development of children's language facility provided the most valuable insights into their mental growth. The degree of mastery of communication skills determined children's readiness to do school tasks and to profit from instruction.

In an investigation of prison trainees compared to college freshmen, Bickley, Dinnan, and Bickley (1970) recorded age or maturation as being non-influential in contributing to the number of paradigmatic responses from the subjects. Prison trainees were

significantly syntagmatically oriented; the college freshmen provided predominantely paradigmatic responses. This study initiated other studies to determine variables that are related to paradigmatic responses.

Bickley, Dinnan, and Jones (1971) tested first grade students with the Oral P/S Inventory and found that those who gave a higher proportion of paradigmatic responses scored higher on the Metropolitan Readiness Test. The authors felt that standardized tests rely on paradigmatic responses and therefore suggested that scores on syntagmatic-paradigmatic tests could be used as predictors of academic readiness and success in school.

An experimental study by McCleskey (1974) sought to determine whether or not specific instructional procedures in paradigmatic language would cause differences in reading readiness test achievement among experimental, placebo, and control groups of 58 beginning first grade pupils. The population was pretested using the Metropolitan Readiness Test and Primary Oral Language Inventory. The experimental treatment was developed by the researcher and was composed of 16 structured lessons based on paradigmatic language performance and incorporated pictorial and verbal stimuli. Analysis of covariance was applied to the posttest and results indicated that specific language training was not significantly related to the selected oral language variable. Concerted training produced no increase in paradigmatic responding by the sample in the study.

The general purpose of a study by Switzer (1971) was to determine what type of verbal responses, paradigmatic or syntagmatic,

would be made by students given the Oral C/A Language Inventory. The American College Test (ACT) sub-tests Mathematics Usage Test, and the Diagnostic Reading Tests Survey Section scores were used to place junior college freshmen into three categories: (a) HMHR - students scoring above the fiftieth percentile on both screening measure, (b) HMLR - students scoring above the fiftieth percentile on the math measure and below the fiftieth percentile on the reading measure, and (c) LMLR - students scoring below the fiftieth percentile on both screening measures. The proportion of students making syntagmatic responses was not significantly different as determined by the z-score. One-way analysis of variance was used to test for significant differences of means among the three groups contained in the study. No significant differences were found to exist in the number of paradigmatic responses given on the oral language inventory by students placed in high and low reading groups and high and low mathematics groups at the junior college level.

An oral language study was conducted with 50 subjects by Dinnan, Neilsen, and Crable (1976) to assess the "language readiness" of the group. The group had been given the I.T.B.S. Intelligence Test and had scored below 90. An assessment of responses indicated that at least half the time they were outside the "expected general response" of successful students. When viewed in terms of "expected" perception equal to that as used by the sender, the response was invalid. It was recommended that training in terms of language readiness should ensue before introducing the skill of reading.

When Dinnan, Cowart, and Bickley (1971) analyzed the responses of second, third, and fourth grade good and poor readers, Guilford's products of the intellect were shown to relate to the paradigmatic responses. Syntagmatic operations resulted from the individual's personal experiences and were operable in a closure of the original stimulus. The researcher suggested that the products of mental operations that were testable were also teachable, and that the mental operations were the manipulation of ideas and an awareness of units, classes, systems, and relations which were incorporated into a reading readiness program. Conscious development of each category should be among educational goals so that the "intellectual product production" frame of reference, paradigmatic response, would become part of the academic behavior of the student.

Shen and McNinch (1971) involved 290 eighth grade students from an urban junior high school in Hattiesburg, Mississippi. The students were administered the I.T.B.S. Reading Comprehension Test, which served to rate good readers as those scoring .5 year above grade placement and poor readers as those scoring .5 year below grade placement. Twenty-five subjects were randomly assigned to each group to be involved in the final testing sample. All subjects were individually tested with the Oral C/A Language Inventory. The t-test showed that there existed a significant difference between the good and poor reading groups. The good readers gave more paradigmatic responses than did the poor readers.

Fifty-three college students were administered the Scholastic Aptitude Test in a study by Dinnan, Curtis, and Figa (1976). A

disparity existed between the means of verbal scores and math scores with a higher mean math score. Computation of a t-test indicated a significant difference between the means at the .001 level of confidence. The subjects were administered a free word association test of 30 stimulus-words from the first 500 words of the Word Frequency Book. Using a paradigmatic/syntagmatic frame of reference, the oral responses were scored. Basic contrast sets within the same word class as the initial stimuli were considered paradigmatic responses, and closures or independent responses, which were directly related to the individual's personal experiences were recorded as syntagmatic responses. A mean of 19.30 existed for syntagmatic responses which indicated that two-thirds of the subjects utilized a base reference dependent on personal closure.

Dinnan (1970) suggested that the skill of critical analysis of material resulted in a higher achievement score. The content areas were accused of neglecting the teaching of this process. A program of teaching critical analysis skills which incorporated paradigmatic word associations was recommended as necessary for the manipulation, evaluation, and consolidation of data in terms of the educational environment of the students. The practice of critical analysis was deemed necessary for printed symbols to be meaningful.

Dinnan (1976) declared that individuals rated at or above expected performance level five were those same individuals who produced paradigmatic responses on a free-association test. Those persons

responding with syntagmatic behavior were rated below the expected performance level. The dependent variable was the performance of the subjects on a free-word association test. Analysis of responses suggested that syntagmatic responding was dependent on the experiences of the individual. Paradigmatic behavior was a common set of base references which assisted the individual in perceiving relations within the expected communication spectrum.

Bigaj, Dinnan, and Crabel (1977), sought to assess the verbal responses of good and poor readers who had completed one year of schooling. The 24 subjects were given the Peabody Picture Vocabulary Test and the Oral P/S Language Inventory. The data were submitted to a correlational analysis and t-test. The mean scores were examined using the t-test and were significant beyond the .01 level of significance. Review of the results placed low achievers in reading as scoring low on the PPVT and responding syntagmatically on the P/S Inventory. Those subjects who were rated as high achievers in reading also scored high on the PPVT and had predominantely paradigmatic responses to the P/S Inventory.

Brosier (1974) administered two researcher-developed tests, the Paradigmatic Free Association Test and the Paradigmatic Constrained Association Test to 400 first through fifth grade students from a southern city. Significant relationships were found between paradigmatic responses and certain academic and non-academic variables. Results showed that paradigmatic behavior substantially affected scores according to vocabulary, intelligence, and age when administered

in free association or in constrained association. The combined test results yielded a distinct relationship with reading vocabulary and comprehension, math concepts and problems, as well as intelligence and age.

McNinch (1972) used the experimental and control design to investigate whether a significant relationship between paradigmatic responses and skills of reading and intelligance existed. The subjects were sixth grade students who were reading below grade level as measured by the Stanford Achievement Test (Reading) Form W, and divided them into experimental, control, and placebo groups to attempt to determine if paradigmatic response training could be used as an effective means of improving achievement in word meaning or paragraph meaning. The results indicated that no significant relationship existed between paradigmatic responding and measured skills in reading and intelligence.

Bickley, Bickley, and Cowart (1971) administered the California Reading Test and the Paradigmatic/Syntagmatic (P/S) Language Inventory to a group of fourth grade students in a summer reading program in a southern city. The study suggested that one should be able to predict reading performance on the basis of a subject's oral language responses. The conclusion was based on the t-ratio derived from the number of syntagmatic responses given by the subjects. The students who gave a higher proportion of syntagmatic responses on the P/S Language Inventory were more likely to score lower on the California Reading Test. They also suggested that

academic success on standardized tests might be improved by training in paradigmatic responding.

Dinnan, Bickley, and Williams (1971) found that students who scored higher on the verbal section of the Scholastic Aptitude Test as entering college freshmen tended to give a higher proportion of paradigmatic answers on the C/A Language Inventory compiled from Pavio's list of concrete-abstract words; entering freshmen whose SAT scores placed them in the high risk of failure category tended to give a higher proportion of syntagmatic responses on the C/A Language Inventory. They felt that students who responded with a high proportion of syntagmatic responses were using internalized meanings that were not academically acceptable.

In an investigation by Hornsby (1975) to determine the relationship between paradigmatic language, reading achievement, intelligence, and performance ability for academic and vocational junior college students, no significant differences were found in the mean number of paradigmatic responses. The students were administered the Oral C/A Language Inventory, Diagnostic Reading Tests, General Aptitude Test Battery (sub-test eight), Purdue Pegboard and the Otis Quick-Scoring Mental Abilities Test. The lack of significant difference as determined by analysis of covariance seemed to indicate that the Oral C/A Language Inventory did not discriminate verbal differences between vocationally and academically oriented students.

Subjects in a study by Kingston, Dinnan, and King (1976) were 48 black, culturally disadvantaged 15 and 16 year-olds in a special

reading program. The Oral P/S Language Inventory was individually administered as well as the Nelson-Denny Reading Test. Subjects were given a test to ascertain eye dominance and were asked to throw a ball to establish handedness. Lack of significant differences was revealed from analysis of variance between syntagmatic/paradigmatic responding and reading achievement of subjects who were left-handed or-eyed and those who were right-handed. Correlation of syntagmatic responses to the Nelson reading scores obtained a Pearson product-moment coefficient of -.58.

McNinch (1972) randomly selected 30 sixth grade students from a southern town which had a wide spectrum of students in terms of social class status and academic performance. Pupils were assigned a rank of one to six according to the type of employment of the fathers. Subjects were administered the Oral C/A Language Inventory to determine the frequency of paradigmatic responses within the sample. Analysis of data indicated that no significant differences existed among various social groups on the measure of paradigmatic responses. The lack of differences seemed to confuse the supposition that lower social class strata children performed less well academically than children of middle social classes. Perhaps academic achievement was related more to factors of problem solving, direct instruction, motivation, or something other than language that could be termed either paradigmatic (elaborated code) or syntagmatic (restricted code).

The purpose of a study by Rothenberg (1973) was to test the relationship between the tendency to opposite responding on word-association tests and creativity or originality. The subjects were

113 Yale students enrolled in a beginning psychology course who were identified as highly creative or not highly creative students. Ninety-nine words from the Kent-Rosanoff List and the word "fair" substituted for "chair" were used as the stimulus words. The results indicated that rapid opposite responding was associated with the subjects who had been deemed as highly creative. Calculation of contrast responses for the two groups showed an even larger difference with the highly creative subjects providing a significantly greater number of contrast responses than had been with the opposite responding.

Baines (1975) administered oral free-word association tasks and paragraph re-write tests to 180 fourth, eighth, and twelfth grade students who were rated according to good and poor readers. Findings indicated that syntax and semantic associations were important components of reading. She found that paragraph length (T-unit measure) and paradigmatic responses to stimulus words reliably measured vocabulary knowledge. There was an increased number of responses from grade four to grade eight. A relationship was found to exist between the number of paradigmatic responses and the syntactic complexity of a student's written work.

It was proposed by Dinnan (1975) that communication took place most effectively when the "sender" and "receiver" used the same base reference rather than individual perceptions in processing the stimulus data. For the intellect to successfully comprehend, interpret, and process information, the base reference possessed a

common denominator. That process was proposed to be the fundamental contrasts relative to matter-time-space so that commonalities in communication produced positive learning behavior.

According to Dinnan (1977), the literature regarding mental testing suggested that intelligence measured by verbal tests relied on factors identified as verbal cognitive components of mental ability. The mental components were categorized in conjunction with that which the examiner requested of the subject. Language, in the process of communication, was considered inseparable from thought and as occurring through two major categories. The first was the relationship of the world to the individual (matter to specific mass) and the second was the identification of matter to matter relative to its location in space, time, and amount.

Dinnan and Lodge (1976) accepted the position of oral language in the communication process, but suggested that language and thought were products of the intellect. Successful functioning of the intellect depended upon the ability to send and receive messages, each message containing elements of relationships. Words used to relate concepts of matter, time, space, and volume were of common base references, or else the meaning of the idea being communicated was lost. It was proposed that an analysis of the paradigm to stimulus-words reflected the sophistication of the individual's intellectual process.

SUMMARY

Readiness to perform school tasks and the assessment of what the student learned relied on language usage (Bickley, Dinnan, and Jones, 1971; Heilman, 1972; McCleskey, 1974; Switzer, 1971; Dinnan, Neilsen, and Crable, 1976). The degree of mastery of the basic communication skills was reflected in academic achievement (Dinnan, Cowart, and Bickley, 1971; Dinnan, 1970; 1975; 1976). A relationship was established between oral responses on an informal language inventory and intelligence (Dinnan, Curtis, and Figa, 1976; Bigaj, Dinnan, and Crable, 1977; Brosier, 1974; Hornsby, 1975); reading and math (Bickley, Bickley, and Cowart, 1971; Dinnan, Bickley, and Williams, 1971; Switzer, 1971; Kingston, Dinnan, and King, 1976); creativity (Rothenberg, 1973); and paragraph length (Baines, 1975).

Chapter 3

PROCEDURE

BACKGROUND

The problem of the study was to determine if there were a positive correlation between paradigmatic responding and factors of achievement among a select group of eighth grade students. The study sought to determine the degree of relationship that existed between the Metropolitan Achievement Tests, Advanced Battery, Form G, sub-test scores in Reading, Word Knowledge, and Language and the number of paradigmatic responses on the Oral Paradigmatic/Syntagmatic Language Inventory. Results were analyzed by sex and by race.

Westdale Junior High School, Baton Rouge, Louisiana, was the setting for this research study. The school contained grades seven, eight, and nine with a 1976-77 enrollment of 843 pupils of which 434 or 51.5 percent were white students, and 409 or 48.5 percent were black students.

Stanford Diagnostic Reading Tests had been combined with informal testing in the area of reading as part of the instructional program at the school for three years prior to this project. During the 1975-76 school year, an intensive reading program for the seventh grade was initiated in the school. The pupils who had participated in that program were incorporated in the student population of eighth graders who were the subjects included in this research project. There were 120 black students (50 males, 70 females) and 123 white students (66 males, 57 females).

ADMINISTRATION OF THE TESTS

Prior to collecting data from the designated school, a letter (Appendix A) was written to the Assistant Superintendent of Instructional Services of East Baton Rouge Parish School Board describing the proposed project and requesting permission to conduct the research. A letter (Appendix B) was also written to the Chairman of the Committee on Use of Humans and Animals in Research at Louisiana State University in which the procedure of the proposition was described. After receiving approval (Appendix C) to proceed with the study, the principal of the school was contacted. Permission from him was obtained, and the time and method of testing was planned with him. It was decided that the least disruption would occur by removing students from their physical education classes. The researcher spent a day at the school and contacted each teacher during the established conference period to explain the nature of the project, to determine the most feasible approach to student involvement, and to assure them that in no way were they to be burdened with additional tasks. The responses from the teachers were cooperative and enthusiastic. Days and class periods were organized for the testing sessions. It was decided that either boys or girls would be tested, but not in a combined testing time. Testing began on the afternoon of Thursday, April 28, 1977, and proceeded through Friday, May 6, 1977 with a two-day weekend being observed. Five teachers were involved, three of whom taught boys' classes and two of whom taught girls' classes. The classes were

not totally comprised of eighth grade pupils, so the classes were disrupted by the removal of some of the students. The teachers willingly adjusted their plans to permit the students' participation in the research project.

The researcher met with the students each class period in a multi-purpose room and explained the purpose of the deviation from daily routine of classes. The following dialogue was used:

> Hello, Young Ladies/Gentlemen, I am Mrs. Cromwell, a former Westdale teacher. I am now attending Louisiana State University and have been given an assignment in one of my classes. Mr. McKay, the principal, and Dr. Lorin Smiley, the Assistant Superintendent of Instruction, have said that I may perform my task here at Westdale with the eighth grade pupils. It's a very simple task involving each of you, but to me it is a very important assignment. I want to talk with each person for about three minutes. I will say a word, you will respond, and I will write what you say. You have no writing to do. No answer will be wrong. This is not a 'test', and it will in no way affect your grades. I can only do this if you are willing to cooperate with me. I would like very much to make an 'A', so will you help me? (Paused) If you are willing, we will get started. I will take you, one at a time, into the office next door to this room. As soon as that person leaves, the next one will come in. We will count off so that we will know in which order each person comes to the office with me.

Consecutive counting was done and testing began. The cooperation of the students was secured with the exception of one who expressed a desire to return to class rather than to participate. Permission was granted, and he was not included in the data reported in this study.

The Oral P/S Language Inventory (Appendix D) was individually administered to the 266 members of the eighth grade who were in attendance on those days which had been designated as the time of

test administration. The Oral P/S Language Inventory was a 30 word language inventory compiled from the Fitzgerald (1963) "List of Basic Communicating Vocabulary" and required the examiner to provide a stimulus-word to the subject in privacy and to record the response elicited from the subject.

The space used for testing at the selected school was the office of the reading specialist who was at the school three days a week. It had been arranged that plans would be adjusted so that privacy would be assured for the examiner and the subjects during the testing periods.

After each subject entered from the adjoining room and was seated, the examiner asked for the individual's name, then recorded it and the race and sex of the pupil on the answer sheet. The subject was then given instructions according to the instructions of the Oral P/S Language Inventory: "Give me the first word you think of when I say this word _____." The 30 stimulus words were then provided and the subject's responses were recorded. If the individual paused and no response seemed forthcoming, encouragement was given to the person to provide a response. After several seconds had lapsed, the word was passed over and the next stimulus word was given. Inability to respond seldom occurred. No trials were given prior to the collected responses for the examiner did not wish to influence the individual in the kind of responses emitted. Upon completion of the P/S Inventory, in the event a student gave a response based on a homonym of a stimulus word, the examiner repeated

the stimulus word and said to the child, "Think of another word for _____ (the homonym responded to by the child) and give me the first word you think of."

The Metropolitan Achievement Tests were administered to all students in grades one through eight in East Baton Rouge Parish Schools as the selected standardized test utilized in a parish-wide testing program. An in-service program had been held to provide instruction to those persons who were to be responsible for administering the tests to the students.

TREATMENT OF THE DATA

The individual responses on the Oral P/S Language Inventory were entered on the individual test answer sheet which had been constructed by the examiner. Subsequent to the testing, evaluation of each response was made in terms of the "Categorization of Paradigmatic/Syntagmatic Oral Responses" as posited by Dinnan (1973). The number of paradigmatic responses was entered in the space provided on the individual answer sheet.

Data Processing, one of the departments of the central office of the East Baton Rouge Parish School Board, was responsible for tabulating the score results of the Metropolitan Achievement Tests. The examiner was privileged to have access to the copy of scores which was sent to Westdale Junior High School for its student population. The names of the eighth grade students were recorded on the computer sheet in alphabetical order. The scores were taken from the printed sheet and properly recorded in the space provided on

the individual answer sheets. Only the sub-test scores in Reading, Word Knowledge, and Language were relevant to this study; consequently, only those scores were the ones applied to the data collection.

Upon completion of the recording of scores, the individual sheets were separated into four groups: black males, black females, white males, and white females. The raw scores were used to construct frequency distribution tables which were then used to construct scatter diagrams. The data for the scatter diagrams were analyzed by using the Pearson product-moment method to calculate the correlation coefficients by race and sex between the Oral P/S Language Inventory scores and the sub-test raw scores from the MAT in Reading, Word Knowledge, and Language. To determine the level of significance, z-scores were used.

Chapter 4

PRESENTATION AND ANALYSIS OF DATA

The purpose of this chapter was to present and analyze the data pertaining to the relationships between the Oral P/S Language Inventory and the MAT sub-tests of Reading, Word Knowledge, and Language. The correlations between test scores were expressed by the "product-moment" coefficient of correlation, since Garrett (1966:122) designated such procedure "when the relationship between two sets of measures is linear, meaning they could be described by a straight line."

Product-moment coefficients of correlation were calculated for white males, black males, black females, and white females who were in the eighth grade of the selected school and in attendance on the days when testing occurred. Combinations by sex and by race were also computed. Results were presented in the tables which accompanied the discussions.

The correlation coefficients were submitted to tests of significance at the .05 level of confidence. Garrett (1966:122) explained that at the .05 level of confidence "only 5 times in 100 trials would the calculated r arise from fluctuations of sampling alone if the population r were actually .00."

The following null hypotheses were tested to determine if the correlation coefficients were attributed to chance:

1. There was no significant relationship between the scores of white male eighth grade students in reading as determined by their raw scores on the MAT sub-test and their number of paradigmatic responses on the P/S Inventory.

2. There was no significant relationship between the scores of white male eighth grade students in word knowledge as determined by their raw scores on the MAT sub-test and their number of paradigmatic responses on the P/S Inventory.

3. There was no significant relationship between the scores of white male eighth grade students in language as determined by their raw scores on the MAT sub-test and their number of paradigmatic responses on the P/S Inventory.

4. There was no significant relationship between the scores of black male eighth grade students in reading as determined by their raw scores on the MAT sub-test and their number of paradigmatic responses on the P/S Inventory.

5. There was no significant relationship between the scores of black male eighth grade students in word knowledge as determined by their raw scores on the MAT sub-test and their number of paradigmatic responses on the P/S Inventory.

6. There was no significant relationship between the scores of black male eighth grade students in language as determined by their raw scores on the MAT sub-test and their number of paradigmatic responses on the P/S Inventory.

7. There was no significant relationship between the scores of black female eighth grade students in reading as determined by their raw scores on the MAT sub-test and their number of paradigmatic responses on the P/S Inventory.

8. There was no significant relationship between the scores of black female eighth grade students in word knowledge as determined by their raw scores on the MAT sub-test and their number of paradigmatic responses on the P/S Inventory.

9. There was no signficiant relationship between the scores of black female eighth grade students in language as determined by their raw scores on the MAT sub-test and their number of paradigmatic responses on the P/S Inventory.

10. There was no significant relationship between the scores of white female eighth grade students in reading as determined by their raw scores on the MAT sub-test and their number of paradigmatic responses on the P/S Inventory.

11. There was no significant relationship between the scores of white female eighth grade students in word knowledge as determined by their raw scores on the MAT sub-test and their number of paradigmatic responses on the P/S Inventory.

12. There was no significant relationship between the scores of white female eighth grade students in language as determined by their raw scores on the MAT sub-test and their number of paradigmatic responses on the P/S Inventory.

13. There was no significant relationship between the scores of black eighth grade students in reading as determined by their raw scores on the MAT sub-test and their number of paradigmatic responses on the P/S Inventory.

14. There was no significant relationship between the scores of black eighth grade students in word knowledge as determined by their raw scores on MAT sub-test and their number of paradigmatic responses on the P/S Inventory.

15. There was no significant relationship between the scores of black eighth grade students in language as determined by their raw scores on the MAT sub-test and their number of paradigmatic responses on the P/S Inventory.

16. There was no significant relationship between the scores of white eighth grade students in reading as determined by their raw scores on the MAT sub-test and their number of paradigmatic responses on the P/S Inventory.

17. There was no significant relationship between the scores of white eighth grade students in word knowledge as determined by their raw scores on the MAT sub-test and their number of paradigmatic responses on the P/S Inventory.

18. There was no significant relationship between the scores of white eighth grade students in language as determined by their raw scores on the MAT sub-test and their number of paradigmatic responses on the P/S Inventory.

19. There was no significant relationship between the scores of male eighth grade students in reading as determined by their raw scores on the MAT sub-test and their number of paradigmatic responses on the P/S Inventory.

20. There was no significant relationship between the scores of male eighth grade students in word knowledge as determined by their raw scores on the MAT sub-test and their number of paradigmatic responses on the P/S Inventory.

21. There was no significant relationship between the scores of male eighth grade students in language as determined by their raw scores on the MAT sub-test and their number of paradigmatic responses on the P/S Inventory.

22. There was no significant relationship between the scores of female eighth grade students in reading as determined by their raw scores on the MAT sub-test and their number of paradigmatic responses on the P/S Inventory.

23. There was no significant relationship between the scores of female eighth grade students in word knowledge as determined by their raw scores on the MAT sub-test and their number of paradigmatic responses on the P/S Inventory.

24. There was no significant relationship between the scores of female eighth grade students in language as determined by their raw scores on the MAT sub-test and their number of paradigmatic responses on the P/S Inventory.

In order to test the hypotheses, the 243 students were divided into the following sub-groups: white males, black males, black females, white females, black students, white students, males, and females. The Pearson r for each sub-group was submitted to tests of significance. Garrett's (1967:201) Table 25 was consulted to compare the obtained r with the tabulated entries by entering with (n-2) degrees of freedom. Table 25 contained two significance levels, .05 and .01, with linear interpolation.

ANALYSIS OF DATA FOR WHITE MALE STUDENTS

The purpose of this section was to respond to null hypotheses one through three. There were 66 subjects in this sub-group of the sample population. To make the tests for the levels of significance, Garrett's (1966) Table 25 was consulted and levels of significance were obtained for 64 degrees of freedom.

Null hypothesis number one stated that there was no significant relationship between the scores of white male eighth grade students in reading as determined by their raw scores on the MAT sub-test and their number of paradigmatic responses on the P/S Inventory. The calculated Pearson r was -.0092. Since this did not meet the test of .2428, null hypothesis number one was accepted.

Null hypothesis number two stated that there was no significant relationship between the scores of white male eighth grade students in word knowledge as determined by their raw scores on the MAT sub-test and their number of paradigmatic responses on the P/S Inventory. The calculated Pearson r was .0871. Since this did

not meet the test of .2428 at the .05 level, null hypothesis number two was accepted.

Null hypothesis number three stated that there was no significant relationship between the scores of white male eighth grade students in language as determined by their raw scores on the MAT sub-test and their number of paradigmatic responses on the P/S Inventory. The calculated Pearson r was .2052. Since this did not meet the test of .2428 at the .05 level, null hypothesis number three was accepted. There were no levels of significance for white male eighth grade students between their paradigmatic responses on the Oral P/S Language Inventory and their raw scores on the MAT sub-tests in Reading, Word Knowledge, and Language as shown in Table 1.

Table 1

Correlation Coefficients, Degrees of Freedom, and Levels of Significance Between the Oral P/S Language Inventory and MAT Sub-Test Scores of 66 White Male Students

MAT Sub-Tests	r	df	Required for .05	Required for .01
Reading	-.0092	64	.2428	.3158
Word Knowledge	.0871			
Language	.2052			

ANALYSIS OF DATA FOR BLACK MALE STUDENTS

The purpose of this section was to respond to null hypotheses four through six. There were 50 subjects in this sub-group of the sample population. To make the tests for the levels of significance, Garrett's (1966) Table 25 was consulted with 48 degrees of freedom.

Null hypothesis number four stated that there was no significant relationship between the scores of black male eighth grade students in reading as determined by their raw scores on the MAT sub-test and their number of paradigmatic responses on the P/S Inventory. The calculated Pearson r was .3541. The .05 level of significance was obtained. Null hypothesis number four was rejected.

Null hypothesis number five stated that there was no significant relationship between the scores of black male eighth grade students in word knowledge as determined by their raw scores on the MAT sub-test and their number of paradigmatic responses on the P/S Inventory. The calculated Pearson r was .4315. The .01 level of significance was obtained. Null hypothesis number five was rejected.

Null hypothesis number six stated that there was no significant relationship between the scores of black male eighth grade students in language as determined by their raw scores on the MAT sub-test and their number of paradigmatic responses on the P/S Inventory. The calculated Pearson r was .2926. The .05 level of significance was obtained. Null hypothesis number six was rejected. Levels of significance were obtained for black male eighth grade students between their number of paradigmatic responses on the Oral

P/S Language Inventory and their raw scores on selected MAT sub-tests as shown in Table 2.

Table 2

Correlation Coefficients, Degrees of Freedom, and Levels of Significance Between the Oral P/S Language Inventory and MAT Sub-Test Scores of 50 Black Male Students

MAT Sub-Tests	r	df	Required for .05	Required for .01
Reading	.3541*	48	.279	.3612
Word Knowledge	.4315**			
Language	.2926*			

*Significant at .05 level
**Significant at .01 level

ANALYSIS OF DATA FOR BLACK FEMALE STUDENTS

The purpose of this section was to respond to null hypotheses seven through nine. There were 70 subjects in this sub-group of the sample population. To make the tests for the levels of significance, Garrett's (1966) Table 25 was consulted with 68 degrees of freedom.

Null hypothesis number seven stated that there was no significant relationship between the scores of black female eighth grade students in reading as determined by their raw scores on the MAT sub-test and their number of paradigmatic responses on the P/S Inventory. The calculated Pearson r was .4054. The .01 level of

significance was obtained. Null hypothesis number seven was rejected.

Null hypothesis number eight stated that there was no significant relationship between the scores of black female eighth grade students in word knowledge as determined by their raw scores on the MAT sub-test and their number of paradigmatic responses on the P/S Inventory. The calculated Pearson r was .2965. The .05 level of significance was obtained. Null hypothesis number eight was rejected.

Null hypothesis number nine stated that there was no significant relationship between the scores of black female eighth grade students in language as determined by their raw scores on the MAT sub-test and their number of paradigmatic responses on the P/S Inventory. The calculated Pearson r was .3728. The .01 level of significance was obtained. Null hypothesis number nine was rejected. Levels of significance were obtained for black female eighth grade students between their number of paradigmatic responses on the Oral P/S Language Inventory and their raw scores on selected MAT sub-tests as shown in Table 3.

ANALYSIS OF DATA FOR WHITE FEMALE STUDENTS

The purpose of this section was to respond to null hypotheses ten through twelve. There were 57 subjects in this sub-group of the sample population. To make the tests for the levels of significance, Garrett's (1966) Table 25 was consulted with 55 degrees of freedom.

Table 3

Correlation Coefficients, Degrees of Freedom, and Levels of Significance Between the Oral P/S Language Inventory and MAT Sub-Test Scores of 70 Black Female Students

MAT Sub-Tests	r	df	Required for .05	Required for .01
Reading	.4054**	68	.2356	.3066
Word Knowledge	.2965*			
Language	.3728**			

*Significant at .05 level
**Significant at .01 level

Null hypothesis number ten stated that there was no significant relationship between the scores of white female eighth grade students in reading as determined by their raw scores on the MAT sub-test and their number of paradigmatic responses on the P/S Inventory. The calculated Pearson r was .0658. Since this did not meet the test of .2615 at the .05 level, null hypothesis number ten was accepted.

Null hypothesis number eleven stated that there was no significant relationship between the scores of white female eighth grade students in word knowledge as determined by their raw scores on the MAT sub-test and their number of paradigmatic responses on the P/S Inventory. The calculated Pearson r was .0542. Since this did not meet the test of .2615 at the .05 level, null hypothesis number eleven was accepted.

Null hypothesis number twelve stated that there was no significant relationship between the scores of white female eighth grade students in language as determined by their raw scores on the MAT sub-test and their number of paradigmatic responses on the P/S Inventory. The calculated Pearson r was .1787. Since this did not meet the test of .2615 at the .05 level, null hypothesis number twelve was accepted. There were no levels of significance for white female eighth grade students between their number of paradigmatic responses on the Oral P/S Language Inventory and their raw scores on the MAT sub-tests in Reading, Word Knowledge, and Language as shown in Table 4.

Table 4

Correlation Coefficients, Degrees of Freedom, and Levels of Significance Between the Oral P/S Language Inventory and MAT Sub-Test Scores of 57 White Female Students

MAT Sub-Tests	r	df	Required for .05	Required for .01
Reading	.0658	55	.2615	.3396
Word Knowledge	.0542			
Language	.1787			

ANALYSIS OF DATA FOR BLACK STUDENTS

The purpose of this section was to respond to null hypotheses thirteen through fifteen. There were 120 subjects in this sub-group

of the sample population. To make the tests for the levels of significance, Garrett's (1966) Table 25 was consulted with 118 degrees of freedom.

Null hypothesis number thirteen stated that there was no significant relationship between the scores of black eighth grade students in reading as determined by their raw scores on the MAT sub-test and their number of paradigmatic responses on the P/S Inventory. The calculated Pearson r was .3792. The .01 level of significance was obtained. Null hypothesis number thirteen was rejected.

Null hypothesis number fourteen stated that there was no significant relationship between the scores of black eighth grade students in word knowledge as determined by their raw scores on the MAT sub-test and their number of paradigmatic responses on the P/S Inventory. The calculated Pearson r was .3208. The .01 level of significance was obtained. Null hypothesis number fifteen was rejected. Levels of significance were obtained for black eighth grade students between their number of paradigmatic responses on the Oral P/S Language Inventory and their raw scores on selected MAT sub-tests as shown in Table 5.

ANALYSIS OF DATA FOR WHITE STUDENTS

The purpose of this section was to respond to null hypotheses sixteen through eighteen. There were 123 subjects in this sub-group of the sample population. To make the tests for the levels of significance, Garrett's (1966) Table 25 was consulted with 121 degrees of freedom.

Table 5

Correlation Coefficients, Degrees of Freedom, and Levels of Significance Between the Oral P/S Language Inventory and MAT Sub-Test Scores of 120 Black Students

MAT Sub-Tests	r	df	Required for .05	Required for .01
Reading	.3792**	118	.1799	.2353
Word Knowledge	.3669**			
Language	.3208**			

**Significant at .01 level

Null hypothesis number sixteen stated that there was no significant relationship between the scores of white eighth grade students in reading as determined by their raw scores on the MAT sub-test and their number of paradigmatic responses on the P/S Inventory. The calculated Pearson r was -.0108. Since this did not meet the test of .1774 at the .05 level, null hypothesis number sixteen was accepted.

Null hypothesis number seventeen stated that there was no significant relationship between the scores of white eighth grade students in word knowledge as determined by their raw scores on the MAT sub-test and their number of paradigmatic responses on the P/S Inventory. The calculated Pearson r was .0618. Since this did not meet the test of .1774 at the .05 level, null hypothesis number seventeen was accepted.

Null hypothesis number eighteen stated that there was no significant relationship between the scores of white eighth grade students in language as determined by their raw scores on the MAT sub-test and their number of paradigmatic responses on the P/S Inventory. The calculated Pearson r was .1140. Since this did not meet the test of .1774 at the .05 level, null hypothesis number eighteen was accepted. There was no level of significance for white eighth grade students between their number of paradigmatic responses on the Oral P/S Language Inventory and their raw scores on the MAT sub-tests in Reading, Word Knowledge, and Language as shown in Table 6.

Table 6

Correlation Coefficients, Degrees of Freedom, and Levels of Significance Between the Oral P/S Language Inventory and MAT Sub-Test Scores of 123 White Students

MAT Sub-Tests	r	df	Required for .05	Required for .01
Reading	-.0108	121	.1774	.2322
Word Knowledge	.1140			
Language	.0618			

ANALYSIS OF DATA FOR MALE STUDENTS

The purpose of this section was to respond to null hypotheses nineteen through twenty-one. There were 116 subjects in this

sub-group of the sample population. To make the tests for the levels of significance, Garrett's (1966) Table 25 was consulted with 114 degrees of freedom.

Null hypothesis number nineteen stated that there was no significant relationship between the scores of male eighth grade students in reading as determined by their raw scores on the MAT sub-test and their number of paradigmatic responses on the P/S Inventory. The calculated Pearson r was .2247. The .05 level of significance was obtained. Null hypothesis number nineteen was rejected.

Null hypothesis number twenty stated that there was no significant relationship between the scores of male eighth grade students in word knowledge as determined by their raw scores on the MAT sub-test and their number of paradigmatic responses on the P/S Inventory. The calculated Pearson r was .3182. The .01 level of significance was obtained. Null hypothesis number twenty was rejected.

Null hypothesis number twenty-one stated that there was no significant relationship between the scores of male eighth grade students in language as determined by their raw scores on the MAT sub-test and their number of paradigmatic responses on the P/S Inventory. The calculated Pearson r was .3192. The .01 level of significance was obtained. Null hypothesis number twenty-one was rejected. Levels of significance were obtained for male eighth grade students between their number of paradigmatic responses on the Oral

P/S Language Inventory and their raw scores on selected MAT sub-tests as shown in Table 7.

Table 7

Correlation Coefficients, Degrees of Freedom, and Levels of Significance Between the Oral P/S Language Inventory and MAT Sub-Test Scores of 116 Male Students

MAT Sub-Tests	r	df	Required for .05	Required for .01
Reading	.2247*	114	.1908	.2394
Word Knowledge	.3182**			
Language	.3192**			

*Significant at .05 level
**Significant at .01 level

ANALYSIS OF DATA FOR FEMALE STUDENTS

The purpose of this section was to respond to null hypotheses twenty-two through twenty-four. There were 127 subjects in this sub-group of the sample population. To make the tests for the levels of significance, Garrett's (1966) Table 25 was consulted with 125 degrees of freedom.

Null hypothesis number twenty-two stated that there was no significant relationship between the scores of female eighth grade students in reading as determined by their raw scores on the MAT sub-test and their number of paradigmatic responses on the P/S Inventory.

The calculated Pearson r was .4112. The .01 level of significance was obtained. Null hypothesis number twenty-two was rejected.

Null hypothesis number twenty-three stated that there was no significant relationship between the scores of female eighth grade students in word knowledge as determined by their raw scores on the MAT sub-test and their number of paradigmatic responses on the P/S Inventory. The calculated Pearson r was .3823. The .01 level of significance was obtained. Null hypothesis number twenty-three was rejected.

Null hypothesis number twenty-four stated that there was no significant relationship between the scores of female eighth grade students in language as determined by their raw scores on the MAT sub-test and their number of paradigmatic responses on the P/S Inventory. The calculated Pearson r was .3997. The .01 level of significance was obtained. Null hypothesis number twenty-four was rejected. Levels of significance were obtained for female eighth grade students between their number of paradigmatic responses on the Oral P/S Language Inventory and their raw scores on selected MAT sub-tests as shown in Table 8.

Table 8

Correlation Coefficients, Degrees of Freedom, and Levels of Significance Between the Oral P/S Language Inventory and MAT Sub-Test Scores of 127 Female Students

MAT Sub-Tests	r	df	Required for .05	Required for .01
Reading	.4112**	125	.174	.228
Word Knowledge	.3823**			
Language	.3997**			

**Significant at .01 level

SUMMARY OF FINDINGS

In testing the twenty-four null hypotheses of this study, fifteen were accepted and nine were rejected.

1. There was no significant relationship between the scores of white male eighth grade students in reading as determined by their raw scores on the MAT sub-test and their number of paradigmatic responses on the P/S Inventory. The null hypothesis was accepted.

2. There was no significant relationship between the scores of white male eighth grade students in word knowledge as determined by their raw scores on the MAT sub-test and their number of paradigmatic responses on the P/S Inventory. The null hypothesis was accepted.

3. There was no significant relationship between the scores of white male eighth grade students in language as determined by

their raw scores on the MAT sub-test and their number of paradigmatic responses on the P/S Inventory. The null hypothesis was accepted.

4. There was no significant relationship between the scores of black male eighth grade students in reading as determined by their raw scores on the MAT sub-test and their number of paradigmatic responses on the P/S Inventory. The null hypothesis was rejected.

5. There was no significant relationship between the scores of black male eighth grade students in word knowledge as determined by their raw scores on the MAT sub-test and their number of paradigmatic responses on the P/S Inventory. The null hypothesis was rejected.

6. There was no significant relationship between the scores of black male eighth grade students in language as determined by their raw scores on the MAT sub-test and their number of paradigmatic responses on the P/S Inventory. The null hypothesis was rejected.

7. There was no significant relationship between the scores of black female eighth grade students in reading as determined by their raw scores on the MAT sub-test and their number of paradigmatic responses on the P/S Inventory. The null hypothesis was rejected.

8. There was no significant relationship between the scores of black female eighth grade students in word knowledge as determined by their raw scores on the MAT sub-test and their number of paradigmatic responses on the P/S Inventory. The null hypothesis was rejected.

9. There was no significant relationship between the scores of black female eighth grade students in language as determined by

their raw scores on the MAT sub-test and their number of paradigmatic responses on the P/S Inventory. The null hypothesis was rejected.

10. There was no significant relationship between the scores of white female eighth grade students in reading as determined by their raw scores on the MAT sub-test and their number of paradigmatic responses on the P/S Inventory. The null hypothesis was accepted.

11. There was no significant relationship between the scores of white female eighth grade students in word knowledge as determined by their raw scores on the MAT sub-test and their number of paradigmatic responses on the P/S Inventory. The null hypothesis was accepted.

12. There was no significant relationship between the scores of white female eighth grade students in language as determined by their raw scores on the MAT sub-test and their number of paradigmatic responses on the P/S Inventory. The null hypothesis was accepted.

13. There was no significant relationship between the scores of black eighth grade students in reading as determined by their raw scores on the MAT sub-test and their number of paradigmatic responses on the P/S Inventory. The null hypothesis was rejected.

14. There was no significant relationship between the scores of black eighth grade students in word knowledge as determined by their raw scores on the MAT sub-test and their number of paradigmatic responses on the P/S Inventory. The null hypothesis was rejected.

15. There was no significant relationship between the scores of black eighth grade students in language as determined by their raw

scores on the MAT sub-test and their number of paradigmatic responses on the P/S Inventory. The null hypothesis was rejected.

16. There was no significant relationship between the scores of white eighth grade students in reading as determined by their raw scores on the MAT sub-test and their number of paradigmatic responses on the P/S Inventory. The null hypothesis was accepted.

17. There was no significant relationship between the scores of white eighth grade students in word knowledge as determined by their raw scores on the MAT sub-test and their number of paradigmatic responses on the P/S Inventory. The null hypothesis was accepted.

18. There was no significant relationship between the scores of white eighth grade students in language as determined by their raw scores on the MAT sub-test and their number of paradigmatic responses on the P/S Inventory. The null hypothesis was accepted.

19. There was no significant relationship between the scores of male eighth grade students in reading as determined by their raw scores on the MAT sub-test and their number of paradigmatic responses on the P/S Inventory. The null hypothesis was rejected.

20. There was no significant relationship between the scores of male eighth grade students in word knowledge as determined by their raw scores on the MAT sub-test and their number of paradigmatic responses on the P/S Inventory. The null hypothesis was rejected.

21. There was no significant relationship between the scores of male eighth grade students in language as determined by their raw scores on the MAT sub-test and their number of paradigmatic responses on the P/S Inventory. The null hypothesis was rejected.

22. There was no significant relationship between the scores of female eighth grade students in reading as determined by their raw scores on the MAT sub-test and their number of paradigmatic responses on the P/S Inventory. The null hypothesis was rejected.

23. There was no significant relationship between the scores of female eighth grade students in word knowledge as determined by their raw scores on the MAT sub-test and their number of paradigmatic responses on the P/S Inventory. The null hypothesis was rejected.

24. There was no significant relationship between the scores of female eighth grade students in language as determined by their raw scores on the MAT sub-test and their number of paradigmatic responses on the P/S Inventory. The null hypothesis was rejected.

Chapter 5

SUMMARY, CONCLUSIONS, AND RECOMMENDATIONS

SUMMARY

The purpose of this study was to determine the degree of relationship that existed between the performance on the Metropolitan Achievement Tests, Advanced Battery, Form G sub-test raw scores in Reading, Word Knowledge, and Language and the performance on the Oral Paradigmatic/Syntagmic Language Inventory among eighth grade students. A primary objective was to assess whether the comparability of performance on these tasks could be related to race or sex. The study was designed to investigate a number of hypotheses, stated in null form, to determine the relationships between measures of paradigmatic responses and reading, word knowledge, and language. Paradigmatic responses on the Oral P/S Language Inventory and the raw scores on the MAT sub-tests in Reading, Word Knowledge, and Language were used. The concern of the investigator was whether or not the Oral P/S Language Inventory could be used by the classroom teacher as a rapid, informal assessment of reading level, word knowledge level, and language ability.

Children were accustomed to hearing and using natural language patterns, and if the classroom teacher could utilize facets of the language development of children in assessing their level of achievement, systematic guidance could be provided in terms of instructional materials. An informal inventory would be expected to

provide expediency in assessing pupil performance and aid in planning effective academic goals. This study was valuable in investigating oral language as a component of the communication process to determine its relationship to factors of achievement in reading, word knowledge, and language. The sample population was composed of 243 eighth grade students in a selected junior high school in southeastern Louisiana. There were 120 black students (50 males, 70 females) and 123 white students (66 males, 57 females).

The data were collected, frequency distributions were tabulated, scattergrams were constructed, and correlation coefficients were calculated by using the Pearson product-moment method. The .05 level of confidence was selected as the criterion of level of significance. The significance of correlation coefficients was tested at .05 level in reading for black male students and male students; in word knowledge for black female students; and in language for black male students. The significance of correlation coefficients was tested at the .01 level of confidence in reading for black female students, black students, and female students; in word knowledge for black male students, black students, male students, and female students; and in language for black female students, black students, male students, and female students. No significant relationships were found in reading, word knowledge, or language for white male students, white female students, or white students.

CONCLUSIONS

From the compilation of the data within the limitations of this study, it seemed reasonable to conclude that:

1. Paradigmatic responses were negatively correlated with reading scores for white male eighth grade students, not at a significant level.

2. Paradigmatic responses were not significantly related to word knowledge scores for white male eighth grade students.

3. Paradigmatic responses were not significantly related to language scores for white male eighth grade students.

4. Paradigmatic responses were significantly related to reading scores for black male eighth grade students.

5. Paradigmatic responses were significantly related to word knowledge scores for black male eighth grade students.

6. Paradigmatic responses were significantly related to language scores for black male eighth grade students.

7. Paradigmatic responses were significantly related to reading scores for black female eighth grade students.

8. Paradigmatic responses were significantly related to word knowledge scores for black female eighth grade students.

9. Paradigmatic responses were significantly related to language scores for black female eighth grade students.

10. Paradigmatic responses were not significantly related to reading scores for white female eighth grade students.

11. Paradigmatic responses were not significantly related to word knowledge scores for white female eighth grade students.

12. Paradigmatic responses were not significantly related to language scores for white female eighth grade students.

13. Paradigmatic responses were significantly related to reading scores for black eighth grade students.

14. Paradigmatic responses were significantly related to word knowledge scores for black eighth grade students.

15. Paradigmatic responses were significantly related to language scores for black eighth grade students.

16. Paradigmatic responses were negatively correlated to reading scores for white eighth grade students, not at a significant level.

17. Paradigmatic responses were not significantly related to word knowledge scores for white eighth grade students.

18. Paradigmatic responses were not significantly related to language scores for white eighth grade students.

19. Paradigmatic responses were significantly related to reading scores for male eighth grade students.

20. Paradigmatic responses were significantly related to word knowledge scores for male eighth grade students.

21. Paradigmatic responses were significantly related to language scores for male eighth grade students.

22. Paradigmatic responses were significantly related to reading scores for female eighth grade students.

23. Paradigmatic responses were significantly related to word knowledge scores for female eighth grade students.

24. Paradigmatic responses were significantly related to language scores for female eighth grade students.

RECOMMENDATIONS

1. Further studies should investigate the significance of relationship between paradigmatic responses and other standardized test scores.

2. Studies should be conducted to standardize the Oral Paradigmatic/Syntagmatic Language Inventory.

3. Further studies should investigate the effect of paradigmatic training on test scores.

4. Studies should investigate language patterns of children at various stages of development as being predictive of achievement levels.

5. Additional studies should be conducted in which other stimulus-words are used to determine the value of paradigmatic responses as an indicator of achievement level.

6. Other studies should attempt to identify additional instruments to aid the classroom teacher in expedient assessment of pupil achievement levels.

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APPENDIX A

April 14, 1977

Dr. Lorin Smiley
Assistant Superintendent of Instruction
East Baton Rouge Parish School Board
Baton Rouge, LA 70821

Dear Dr. Smiley:

Attached is a letter from Mrs. Sue Cromwell requesting permission to do a study of the Oral P/S Language Inventory responses of eighth grade students to be compared to achievement level scores in vocabulary, reading, and language as determined by the MAT.

We have known Mrs. Cromwell for a number of years while doing graduate work here at L.S.U., and we feel this should be a valuable study. We appreciate your consideration. Thank you.

Sincerely,

Helen M. Cookston
Director of Student Teaching

HMC:hs

APPENDIX A

Baton Rouge, LA
April 14, 1977

Dr. Lorin Smiley, Assistant
Superintendent of Instruction
E.B.R. School Board
P. O. Box 2950
Baton Rouge, LA 70821

Dear Dr. Smiley:

Please accept this letter as a request to use the data of eighth grade students that will be obtained from the Metropolitan Achievement Tests to be administered in April, 1977. Permission is also requested to administer a thirty stimulus word individual oral language inventory to the eighth grade students at Westdale Junior High School. A copy of the Oral Paradigmatic/Syntagmatic Language Inventory is attached to this request. The data will be used in a study to be reported in a dissertation. The title of the study will be "An Evaluation of the Oral Paradigmatic/Syntagmatic Language Inventory in Terms of Certain Phases of the Metropolitan Achievement Tests."

At present I am on leave from the E.B.R. School System and am enrolled in the doctoral program at LSU. To fulfill the requirements I would like to make a study on the Oral P/S Language Inventory responses of eighth grade students to be compared to achievement level scores in word knowledge, reading, and language as determined by the MAT.

The results of this study would suggest the advantage of training children in the area of word associates. This study should also be valuable in determining whether or not the Oral P/S Language Inventory may be used by the classroom teacher as a rapid, informal assessment of word knowledge, reading, and/or language level of children. It will take approximately four minutes per child to administer the Oral P/S Language Inventory.

I will be willing to provide you with a copy of the dissertation. You will have my sincerest appreciation for your cooperation in this study.

Yours truly,

Sue A. Cromwell

APPENDIX B

Dr. Robert Lank, Chairman
Committee on Use of Humans and Animals
in Research

Dear Dr. Lank:

I am requesting approval for my proposal from the Committee on Use of Humans and Animals in Research. The title of the proposed study is "An Evaluation of the Oral Paradigmatic/Syntagmatic Language Inventory in Terms of Certain Phases of the Metropolitan Achievement Tests."

I requested permission to collect data from a local junior high school from Dr. Lorin Smiley, Assistant Superintendent of Instruction, East Baton Rouge Parish School System and conferred with Dr. Hoover, and my request was granted. Dr. Smiley then contacted Mr. Jack McKay, Principal of the selected school and obtained his consent for my test administration. Enclosed is a copy of the letter granting permission from Mr. McKay.

I am also enclosing a copy of the comments I made to the students as a group prior to the administration of the individual test. In my study no results will be identified with a student which will assure privacy to the subjects.

Procedure

The Oral P/S Language Inventory will be administered to students in a school with a balanced racial population to be determined by the East Baton Rouge Parish School Administration.

The Oral P/S Language Inventory will be personally administered to each eighth grade student according to the directions given in Appendix A and will be given in the selected school in April and May of 1977.

Upon completion of the Oral P/S Language Inventory, in the event a student has given a response based on a homonym of a stimulus word, the examiner will repeat the stimulus word and say to the child, "Think of another word for _____ (the homonym responded to by the child) and give me the first word you think of."

Raw scores on the sub-tests will be taken from Metropolitan Achievement Tests, Advanced Battery, Form G to be administered in a parish-wide testing program in April of 1977.

The Pearson product-moment method will be used to calculate the correlation coefficients between the Oral P/S Language Inventory scores and the sub-test scores from the MAT. Data will be collected and correlated by race and sex.

Dr. Robert Lank, Chairman
Committee on Use of Humans and Animals
in Research

The Instruments

The Oral P/S Language Inventory is a list of thirty stimulus words which are individually administered to the subjects. The tester is to direct the child to respond with the first word he thinks of upon hearing the stimulus word.

Informal Comments made to Students

"Hello, Young Ladies/Gentlemen, I am Mrs. Cromwell, a former Westdale teacher. I am attending LSU this year and have been given an assignment in one of my classes. Mr. McKay and Dr. Lorin Smiley have said that I may perform my task here at Westdale with the eighth graders. It's a very simple task involving each of you, but to me it is a very important assignment. I want to talk with each person for about three minutes. I will say a word, you will respond, and I will write your response. You have no writing to do. No answer will be wrong. This is not a 'test,' and it will in no way affect your grades. I can only do this if you are willing to cooperate with me. I would like very much to make an 'A,' so will you help me? (Pause) If you are willing, we will get started. I will take you, one at a time, into the office next door. As soon as that person leaves, the next one will come in. We will count off so we will know in what order each one comes to the office with me." Consecutive counting will be done and testing will begin.

I have consulted Dr. Von Brock and am following his recommendations.

The granting of this request will be greatly appreciated.

Yours truly,

Sue A. Cromwell

East Baton Rouge Parish School Board
CLYDE H. LINDSEY, SUPERINTENDENT
P. O. BOX 2950
Baton Rouge Louisiana 70821
PH. (504) 926-2790

April 21, 1977

APPENDIX C

Mrs. Sue Anderson Cromwell
387 Rodney Drive
Baton Rouge, Louisiana 70808

Dear Mrs. Cromwell:

Please be advised that you have permission from this office to administer the oral language inventory to eighth grade students at Westdale Junior High School and to use the data of those eighth grade students from the Metropolitan Achievement Test.

Sincerely yours,

Lorin V. Smiley
Assistant Superintendent
Instructional Services

LVS:SRC

Westdale
JUNIOR HIGH SCHOOL

5650 CLAYCUT ROAD
BATON ROUGE, LA. 70806

JOHN W. McKAY, JR., PRINCIPAL
E. A. ACKOURY, JR., ASSISTANT PRINCIPAL

April 28, 1977

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APPENDIX C

TO: SUE A. CROMWELL

FROM: John W. McKay, Jr., Principal

You have my permission to administer the Oral Language Inventory to eighth grade students during April and May, 1977.

John W. McKay, Jr.

JWMcK:ks

APPENDIX C

Louisiana State University
Baton Rouge Campus

From: Committee on Humans and Animals as Research Subjects.

To: Vice Chancellor for Advanced Studies and Research
David Boyd Hall
Sue A. Cromwell

RE: Proposal of Education Student Received May 16, 1977

Entitled "An Evaluation of the Oral Paradigmatic/ Syntagmatic Language Inventory in Terms of Certain Phases of the Metropolitan Achievement Tests"

This is to certify that a quorum of the Committee on Humans and Animals as Research Subjects reviewed the above proposal. The Committee evaluated the procedures of the proposal with appropriate guidelines established for activities supported by federal funds involving as subjects humans and/or animals.

Recommendation of Committee Approved

Comments: Chairman gave tentative approval May 17, 1977

A review of this proposal by the Committee will be accomplished at least on an annual basis and at more frequent intervals depending on the element of risk.

Date: June 10, 1977

Copy: Sue A. Cromwell,
Education Student
R. C. Von Brock
P. Soderbergh

Chairman, Committee on Use of Humans and Animals as Research Subjects

APPENDIX D

ORAL P/S LANGUAGE INVENTORY

Directions: Give me the first word you think of when I say this word.

1. top _____
2. she _____
3. go _____
4. up _____
5. old _____
6. day _____
7. man _____
8. none _____
9. work _____
10. hand _____
11. high _____
12. city _____
13. half _____
14. open _____
15. father _____
16. poor _____
17. last _____
18. in _____
19. front _____
20. short _____
21. few _____
22. happy _____
23. hot _____
24. on _____
25. take _____
26. all _____
27. under _____
28. land _____
29. little _____
30. door _____

Student's name _____ Sex _____ Race _____

Paradigmatic Responses _____

MAT Scores

Reading _____

Vocabulary _____

Language _____

VITA

Sue Anderson Cromwell was born in Plain Dealing, Louisiana, on August 5, 1934. She attended the elementary school there and in Oil City, Louisiana, and was graduated from Marion High School in Lake Charles, Louisiana, in 1952. In 1969 she received a Bachelor of Arts from McNeese State University.

Her teaching career began in January, 1969. She has taught in Calcasieu and East Baton Rouge Parishes in Louisiana. In 1970 her family moved to Baton Rouge, Louisiana. She was employed to teach at Capitol Junior High School and two years later she was transferred to Westdale Junior High School. Her concern for reading problems encountered by some of her students caused her to enroll in an extension course offered by LSU. Subsequently, she entered the Graduate Division of Education and was awarded the Master of Education in May 1975.

She is married to James William Cromwell and is the mother of one son and one daughter.

EXAMINATION AND THESIS REPORT

Candidate: SUE ANDERSON CROMWELL

Major Field: EDUCATION

Title of Thesis: AN EVALUATION OF THE ORAL PARADIGMATIC/SYNTAGMATIC LANGUAGE INVENTORY IN TERMS OF CERTAIN PHASES OF THE METROPOLITAN ACHIEVEMENT TESTS

Approved:

Eric L. Thurston
Major Professor and Chairman

James E. Tramblay
Dean of the Graduate School

EXAMINING COMMITTEE:

Doris Young

Helen M. Corbston

Jane Adams

Robert C Coon

Jean Andrews

Date of Examination:

November 28, 1977